

Product datasheet for **RR212405**

Axin2 (NM_024355) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Axin2 (NM_024355) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Axin2
Synonyms:	axil; axin-2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR212405 representing NM_024355
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGTAGCGCTGTGTTAGTGACTCTCCTTCCAGATCCAAGCAGCAGCTCCGCGAGGATGCTCCGCGGC
 CCCCGTTCCCGAGAAGAAGGGGAGACCCACCGTGTACGCCTAGCGTGGGCAAGGTCCAGTCCACCAA
 ACCTATGCCTGTCTCCTCTAACGCTAGGCGGAATGAAGATGGGCTGGGGGAGCCCAGGGGCGGGCTCC
 CCAGATCCCCTCTGACCAGGTGGACCAAGTCTTTGCACTCCTTGTGGGGACCAAGATGGTGCATACC
 TCTTCCGACTTTCTGGAGAGGGAGAAATGTGTGGATACCCTGGACTTCTGGTTTGCCTGCAATGGGT
 CAGGCAGATGAAGGATACCAAACTTTGCGAGTGGCCAAAGCAATCTACAAGAGGTACATTGAG
 AACACAGTGTGTCTCAAACAGCTGAAACCCGCCACCAAGACCTACATAAGAGATGGCATCAAGAAGC
 AGCAGATCGGCTCGTCAATGTTTACCAGGCGCAGACGGAGATTCAGGCGGTGATGGAGGAAAATGCCTA
 TCAGGTGTTCTTGACTTCTGACATATACCTCGAATATGTGAGGAGTGGGGGAGAAAACACAGCTTACATG
 AGCAATGGGGGACTGGGGAGCCTAAAGGTCTTATGTGGCTACCTCCCCACCTGAATGAGGAAGAGGAGT
 GGACATGTGCCGACCTGAAGTGCAAACTTTCACCCACCGTGGTTGGCCTATCCAGCAAACTCTCCGGGC
 CACAGCGAGCGTGAGATCCACAGAAACGGCTGAAAACGGATTGAGATCCTTCAAGAGAAGCGAACCGGTT
 AATCCTTATCACGTAGGTTCTGGCTATGTCTTTGCACCAGCCACCAGCGCAACGACAGCGAGTTATCCA
 GCGACGCGCTGACCGACGATTCCATGTCCATGACAGACAGTAGCGTAGATGGAATCCCTCCTTACCGCAT
 GGGGAGTAAGAAACAACCCAGAGAGAGATGCACCGCAGTGTGAAGGCCAATGGCCAAGTGTCTCTACCT
 CACTTCCCAGAAACCCACCGCTGCCAAGGAGATGACGCCGTGGAACCTGCTGCCTTCGCGCGAGAGC
 TCATCTCCAGGCTGGAGAAGCTGAACTGGAGCTGGAGAGCCGCCACAGCCTGGAGAACCGCTGCAGCA
 GATCCGGGAGGATGAAGAAAAGGAGGGTCTGAGCAGGCCCTGAGCTCACGGGATGGAGCACCGGTCCAA
 CACCCCTGGCCCTTACCCTCTGGCAGCTATGAAGAGGACCCACAAACCATCTTGACGACACCCTGT
 CCAGGGTCTCAAGACCCCGGCTGCCAGTCCCCTGGTGTGGGCCGTACAGCCACGCTCCCGCTCCCC
 CGACCACCACCACCACCACATCAGCAGTGTACGCCCTTCTTCCAAGTGGGGGCAAGCTGCCCCCGAG
 GCTGCTTGCCCGCTCCTTGAGGCAAGAGCTTCTGACCAACAGACGACGAAGCACGTCCACCACCACT
 ACATCCACCACCACCGCTCCCTAAGACCAAGGAGGAGATCGAGGCAGAACCCACACAGAGAGTACGCTG
 CCTCTGCCCTGGAGGCACAGATTATTACTGCTACTCCAAGTCAAGAGCCACTCGAAGCCTCCAGAGCCC
 CTCCTGGGGAGCAGTTTGTGGCAGCAGAGGTGGCACCTTGCCAAAACGGAATACGAAAGGCACAGAAC
 CGGGTCTGGCACTGCCGCCAGGGAAGGAGGATGTCCAGTGCAGCAGGGGCCCTCAGCTTCTGGGGA
 AGAAGGAGACCGGTCACAGGATGTCTGGCAGTGGATGTTGGAGAGTGAGCGTCAGAGCAAGTCCAAGCCC
 CATAGTACCCAAAGCATAAGAAAGAGCTACCCGTTGGAGTCTGCCCGCGGCCCCAGGCGAACGAGTCA
 GCCGGCACCATCTGCTGGGGGCCAGTGGACACCCCGCTCAGCGGCCCGGCTCACCCATTTACCCAGGA
 CCCTGCCATGCCTCCCCTAACCCACCCAACACCTTGGCGCAGCTAGAGGAAGCCTGCCGCAGGCTGGCC
 GAGGTGTCAAAGCCCCAGAAACAGAGGTGCTGCGTGGCCAGTCAAGAGGGACAGGAACCCACAGCCA
 CAGGTGAGGACAGCCACATCCTTCTCAACCCGAGCCTGGCTTCAGAAGATCAAAAGAGCCAAAGAG
 ACTGGCTAGTGTCCAGCACTCCAAGCCAGCAGCTGATTGTTACCTTTTTCTGTGGAGAAGAAAT
 CCATACAGGAGGATGCTGAAGGCCAGAGCTTGACTCTGGCCACTTCAAGGAGCAGCTCAGCAAAAAGG
 GAAATTACAGGTATTACTTCAAGAAGGCGAGTGACGAATTTGCCTGTGGAGCAGCTTTGAGGAGATCTG
 GGATGATGAGACAGTGTCCCATGTACGAAGGCAGGATCCTGGGCAAAGTGGAGAGGATCGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR212405 representing NM_024355
 Red=Cloning site Green=Tags(s)

MSSAVLVTLTPDPSSSFREDAPRPPVPGEEGETPPCQPSVGKVVQSTKMPVSSNARRNEDGLGEPEGRAS
 PDSPLTRWTKSLHSLLDGQDGYLFRFLEREKCVDTLDFWFACNGFRQMNLKDTKTLRVAKAIYKRYIE
 NNSVVSQQLKPKATKYIRDGIKKQIGSVDFDQAQTEIQAVMEENAYQVFLTSDIYLEYVRS GGENTAYM
 SNGGLGSLKVLGKYLPTLNEEEEWTCADLKCKLSPTVVGLSSKTLRATASVRSTETAENGFVSFKRSEPV
 NPYHVGSGYVAFAPATSANDELS DALTDDMSMTDSSVDGIPPYRMGSKKQLQREMHRSVKANGQVSLP
 HFRTHRLPKEMTPVEPAFAAELISRLEKLELESRHSLEERLQQIREDEEKEGSEQALSSRDGAPVQ
 HPLALLPSGSYEEDPQTILDDHLSRVLKTGCGQSPGVGRYSPRSRSPDHQHQQCHALLPTGGKLPPE
 AACPLLGGKSFLTKQTTKHVHHYIHHHAVPKTEEIEAEATQVRVCLCPGGTDYCYCKSKSHSKPPEP
 LPGEQFCGSRGGTLPKRNTKGTEPGLALPAREGGMSSAAGAPQLPGEEDRSQDVWQWMLERQSKSKP
 HSTQSIKSYPLESARAPPGERVSRHLLGASGHPRSAARAHPTQDPAMPPLTPPNTLAQLEEACRRLA
 EVSKPQQRCCVASQQRDRNHPATGQAGPTSFNSPLASEDHKEPKRLASVHALQASELIVTYFFCGEEI
 PYRRMLKAQSLTLGHFKEQLSKKGNRYRYFKKASDEFACGAVFEEIWDDETVLPMEGRILGKVERID

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

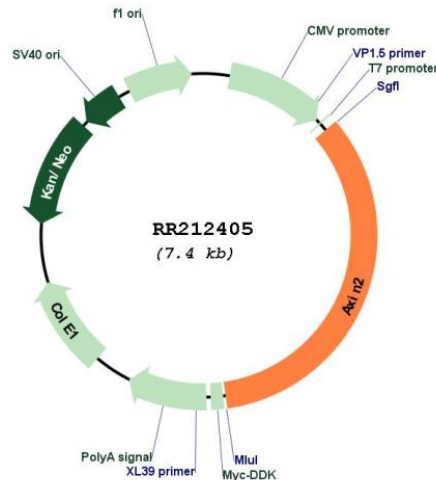
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_024355

ORF Size: 2514 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_024355.1](#), [NP_077331.1](#)

RefSeq Size: 3216 bp

RefSeq ORF: 2517 bp

Locus ID: 29134

UniProt ID: [O70240](#)

Cytogenetics: 10q32.1

MW: 92.9 kDa

Gene Summary: inhibits axis formation; acts as a negative regulator of the Wnt signaling pathway by inducing GSK-3beta-dependent phosphorylation of beta-catenin [RGD, Feb 2006]